

I claim:

1. A fire protection device for a non-fuel tank vehicle system component, comprising:
a rigid container having a first surface and a second surface spaced from said first surface,
containing a fire extinguishing substance therein;
a vehicle system component whose outer contours said rigid container is shaped to conform to
and whose exterior surfaces said rigid container covers in direct contact or in near proximity;
whereby, upon deformation of said rigid container during a collision, said rigid container will be
ruptured and said substance will be discharged to prevent or extinguish any fires generated as a
result of the collision.
2. The device of claim 1, wherein said rigid container is formed in one piece in a fabrication
technique selected from the group consisting of injection molding, casting, vacuum forming,
and die cutting.
3. The device of claim 1, wherein said vehicle system component is selected from the group
consisting of a fuel pump, vapor canister, brake master cylinder, oil pump, oil cooler, oil pan,
power steering fluid pump, washer fluid reservoir, fuel pressure reduction valve, compressed
natural gas valve, liquefied petroleum gas valve, hydrogen valve, hood liner, reservoir fitting
to fluid lines, and connector of fluid lines.
4. The device of claim 3, wherein said fluid line has a rigid flange near its opening.
5. The device of claim 1, wherein said vehicle is selected from the group consisting of
automobiles, airplanes, helicopters, trucks, boats, tractor-trailers, buses, construction
equipment, farm equipment, ambulances, trains, vans and racing vehicles.
6. The device of claim 1, wherein said collision comprises the rupture of an engine oil pan by
an internal component of said engine.

7. A device to neutralize the hazardous effects of toxic, corrosive or caustic chemicals stored and discharged on board vehicles, comprising:

a rigid container having a first surface and a second surface spaced from said first surface, containing a chemical or biological neutralizing substance therein;

a vehicle system component containing toxic, corrosive or caustic chemicals whose outer contours said rigid container covers in direct contact or in near proximity;

whereby, upon deformation of said rigid container during a collision, said rigid container will be ruptured and said substance will be discharged to neutralize any toxic, corrosive or caustic chemicals discharged as a result of the collision.

8. The device of claim 7, wherein said vehicle system component is selected from the group consisting of a battery compartment, a battery, an acid container, and a petroleum container.

9. The device of claim 7, wherein said vehicle is selected from the group consisting of automobiles, airplanes, helicopters, trucks, boats, tractor-trailers, buses, construction equipment, farm equipment, ambulances, trains, vans and racing vehicles.

10. The device of claim 7, wherein said rigid container is formed in one piece in a fabrication technique selected from the group consisting of injection molding, casting, vacuum forming, and die cutting.

11. A fire protection device for a vehicle, comprising:

A rigid container having a first surface and a second surface spaced from said second surface, containing a fire extinguishing substance therein;

whereby, upon sufficient heating of said container, said rigid container will be ruptured and said substance will be discharged to prevent or extinguish any fires generated as a result of the collision.

12. The device of claim 11, wherein said vehicle is selected from the group consisting of automobiles, airplanes, helicopters, trucks, boats, tractor-trailers, buses, construction equipment, farm equipment, ambulances, trains, vans and racing vehicles.

13. The device of claim 11, wherein said vehicle system component is selected from the group consisting of a fuel tank, fuel pump, vapor canister, brake master cylinder, oil pump, oil cooler, oil pan, power steering fluid pump, washer fluid reservoir, fuel pressure reduction valve, compressed natural gas valve, liquefied petroleum gas valve, hydrogen valve, hood liner, reservoir fitting to fluid lines, and connector of fluid lines.

14. The device of claim 11, wherein said rigid container is formed in one piece in a fabrication technique selected from the group consisting of injection molding, casting, vacuum forming, and die cutting.

15. The device of claim 11, wherein said rigid container is pre-stressed prior to installation.

16. The device of claim 11, wherein said rigid container is constrained in growth by an outer framework.

17. A fire protection device for a vehicle, comprising:
a rigid container having a first surface and a second surface spaced from said first surface, with said first surface and said second surface fabricated from separate components;
a plurality of internal channels located between said first surface and said second surface, and containing a fire extinguishing substance therein; said channels each having a first end and a second end, and a longitudinal axis oriented parallel to said first surface and said second surface; whereby, upon deformation of said rigid container during a collision, said rigid container will be ruptured and said substance will be discharged to prevent or extinguish any fires generated as a result of the collision.

18. The device of claim 17, wherein said second surface is fabricated from a different material type than said first surface.
19. The device of claim 17, wherein said second surface is bonded to structures forming said channels in a manner to minimize inhibition of fracturing of said second surface or separation of said second surface and said structures when impacted.
20. The device of claim 17, wherein said second surface is acrylic.